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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,078	05/27/2005	Kazuhiko Aikawa	Q83274	4424

23373 7590 09/18/2006

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WASHINGTON, DC 20037

EXAMINER

KIANNI, KAVEH C

ART UNIT PAPER NUMBER

2883

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/507,078	AIKAWA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kianni C. Kaveh	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,5-10 and 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 4,11-13 and 17-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_



### DETAILED ACTION

Applicant's election without traverse of claims 4, 11-13 and 17-20 in a paper submitted on 7/14/06 is acknowledged. The requirement is still deemed proper and is therefore made FINAL.

**This application is in condition for allowance except for the following formal matters:**

#### Specification

The disclosure is objected to because of the following informalities: in page 5, line 24 the term 'lo' is misspelled. Appropriate correction is required.

#### Claim Objections

Claim 4 is objected to because of the following informalities: the following limitations have antecedent basis problems:

Lines 10, 11 and 12 of the claim: 'the outer periphery...'

Lines 16 and 18 of the claim: 'the relative...'

Lines 20 and 22 of the claim: 'the ratio...'

Appropriate correction is required (i.e. by replacing 'the' by 'A').

Claims 11-13 and 17-20 depend on the objected claim 1 and thus they are also objected.

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Withdrawn claims 2,3,5-10 and 14-16 also need to be cancelled (either by the applicant or by examiner amendment).

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

#### ***Citation of Relevant Prior Art***

Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In accordance with MPEP 707.05 the following references are pertinent in rejection of this application since they provide substantially the same information disclosure as this patent does. These references are:

US 20050069269 A1 Libori, Stig Eigil Barkou et al.

JP10319266 Yamauchi

EP1130428 Okuno et al.

EP1217399 Pierre et al.

Arai et al. EP1107028

These references are cited herein to show the relevance of the apparatus/methods taught within these references as prior art.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Cyrus Kianni whose telephone number is (571) 272-2417.

Art Unit: 2883

The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 6:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font, can be reached at (571) 272-2415.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 872-9306 (for formal communications intended for entry)

**or:**

Hand delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place, Arlington, VA., Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.

K. Cyrus Kianni  
Primary Patent Examiner  
Group Art Unit 2883



**KAVEH KIANNI  
PRIMARY EXAMINER**

September 11, 2006

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